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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,558	01/31/2001	Mitchell Anthony DeLong	7997	3530

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EXAMINER

CHANNAAVAJALA, LAKSHMI SARADA

ART UNIT PAPER NUMBER

1615

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/774,558

Applicant(s)

DELONG ET AL.

Examiner

Lakshmi S Channavajjala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12 and 14-33 is/are pending in the application.
- 4a) Of the above claim(s) 1,19-28 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 2,4-12,14-18,29 and 31-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

Receipt of amendment and response dated 6-7-04 is acknowledged.

Claims 3 and 13 have been canceled. Claims 31-33 have been added. Claims 1, 19-28 and 30 have been withdrawn as being non-elected.

#### ***Response to Arguments***

In response to the amendment to independent claims 2 and 29, examiner has withdrawn the following rejections:

1. Rejection of claims 2, 4-12, 14-18 and 29 under 35 USC 112, first paragraph as containing new matter.
2. Claims 2, 4-10, 12, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,171,331 to Biddlecom et al (hereafter Biddlecom).
3. Claims 2, 4-10, 12, 14-18 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kende et al (Tetrahedron Letters, 11-19-1199) in view of USPN 6,262,105 to Johnstone.
4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,171,331 to Biddlecom et al (Biddlecom).

Applicant's arguments with respect to claims 2, 4-12, 14-18 and 29 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 112***

Claims 2, 4-12, 14-18, 29 and 31-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Instant independent claims recite the limitation "biohydrolyzable amide, ester or imides of 2-decarboxy-2-phosphinico derivatives, which is indefinite because it is unclear as to the meets and bounds of the terms hydrolyzable. Are these compounds encompassed by enzyme hydrolysis? What kinds of esters or amides or imides are being contemplated? Is the hydrolyzable ester (or amide or imides) a precursor that can be hydrolyzed into one of the compounds? A clarification is requested.

***Claim Rejections - 35 USC § 102***

Claim 33 is rejected under 35 U.S.C. 102(b) as being anticipated by US 4171331 to Biddlecom et al (hereafter Biddlecom).

Instant claim recites 2-decarboxy-2-phosphinico derivatives of prostaglandins having a structure "selected from the group consisting of" formula I, II and III.

Biddlecom discloses 1 and 2-substituted analogues of E, A and F prostaglandins, which includes the instant phosphonic derivatives represented by formula III. In particular, the phosphonic derivatives of prostaglandins are described in col. 7, lines 31-67 and the specific compounds of example V (col. 29, lines 55-67 and col. 30, lines 1-10), compounds of examples VIII and IX (col. 32), compound of example XIII (col. 34) and compound of example XIV (col. 35), all of which read on the instant 2-decarboxy-2-phosphinico derivatives of prostaglandins having hydroxyl groups at C11 position on the pentacyclic ring. Further, Biddlecom discloses preparing solutions of prostaglandin derivatives in water (col. 68, lines 50-53) for testing their biological activity. Claim 2 recites the limitation "for treating hair loss", which is an intended use and carries no patentable distinction. Accordingly, the composition of Biddlecom containing phosphonic derivatives of prostaglandin reads on the instant composition claimed. Thus,

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Biddlecom anticipates the 2-decaroxy-2-phosphinico derivatives of prostaglandins (formula III) of the instant claims.

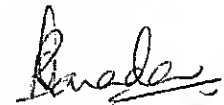
Examiner objected to claim 13 in the previous office action and stated that if written independently with all the limitations of the base claim, claim 13 would be allowable. Further, previous office action also clearly provided reasons for allowing the above claims, in which it is stated that phosphonic acid derivative of prostaglandin possessing an NH group at the C11 position is novel and is not disclosed by the prior art of record. Furthermore, a phosphonic acid derivative of prostaglandin possessing an NH group at C11 position pertains to formula II and not formula III. In response to the objection, applicants canceled claim 13 and presented as a new claim 33 in an independent format. However, as explained in the preceeding paragraph, instant claim requires one of the three formulae (I, II or III) and is not limited to compounds of formula II. Accordingly, Biddlecom anticipates the compound encompassed by formula III.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S Channavajjala whose telephone number is 571-272-0591. The examiner can normally be reached on 7.30 AM -4.00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lakshmi S Channavajjala  
Examiner  
Art Unit 1615  
November 2, 2004